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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,030	04/14/2004	David Cheng-Song Qi	2386.2026-000	7381

21005 7590 08/07/2007

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EXAMINER	
MAHMOUDZADEH, NIMA	

ART UNIT	PAPER NUMBER
2609	

MAIL DATE	DELIVERY MODE
08/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,030	QI ET AL.	
	Examiner	Art Unit	
	Nima Mahmoudzadeh	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/17/2005 and 03/09/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1- 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (US Patent Application Pub No. 2003/0193696) in view of LeBlanc (US Patent Application Pub No.2002/0080730).

Regarding claim 1, Walker et al teach a method for eliminating false voice detection in Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the method comprising:

In voice band data mode, enabling silence detection and disabling voice detection for a voice band signal associated with a VOIP call; monitoring the voice band signal for silence;

in response to detecting silence for a predetermined length of time, enabling voice detection (it is noted when a media gateway transitions back to voice mode, it has been monitored for silence, see page 5, paragraph [0059]).

Walker et al. fails to teach if voice detection is enabled, monitoring the voice band signal for voice; and in response to detecting voice, terminating voice band data mode and entering voice mode.

However, LeBlanc teaches if voice detection is enabled, monitoring the voice band signal for voice; and in response to detecting voice, terminating voice band data mode and entering voice mode. (Page 3, paragraph [0034])

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 2, Walker et al teach the method according to Claim 1 wherein, if the silence detected is shorter than the predetermined length of time, continuing in voice band data mode and disabling voice detection. (It is noted if the silence is detected for less than 7 seconds, data will not transmit back to voice mode. see page 5, paragraph [0059]);

Regarding claim 3, Walker et al teach the method according to Claim 1 wherein, if voice detection is enabled, in an absence of detecting voice, continuing in voice band data mode. (See page 5, paragraph [0059]);

Regarding claim 4, Walker et al teach the method according to Claim 1 wherein detecting silence includes terminating the voice band data mode if silence exceeds a second predetermined length of time. (See page 5, paragraph [0059]);

Regarding claim 5, Walker et al teach the method according to Claim 4 wherein the second predetermined length of time is at least two seconds. (See page 5, paragraph [0059]);

Regarding claim 6, Walker et al teach the method according to Claim 1 wherein detecting silence includes detecting silence in a bi-directional manner. (Fig. 3a)

Regarding claim 7, Walker et al teach the method according to Claim 6 wherein enabling voice detection occurs in response to detecting silence for at least about 250 msec. (It is noted when silence is more than predetermined length voice mode is activated. see page 5, paragraph [0059]);

Regarding claim 8, Walker et al. teach the method according to Claim 1 further including disabling echo cancellation in voice band data mode and enabling echo cancellation in voice mode. (It is noted when voice services is requested echo cancellation should be present. page 1, paragraph [0002])

Regarding claim number 9, Walker et al teach the method according to Claim 1 operating in a gateway. (FIG.1 and Fig.2)

Regarding claim 10, Walker et al teach the method according to Claim 9 wherein the gateway is a terminating gateway. (FIG.1, 14b)

Regarding claim 11, Walker et al teach the method according to Claim 9 wherein the gateway is an originating gateway. (FIG.1, 14a)

Regarding claim 12, Walker et al teach the method according to Claim 1 operating external from a gateway. (It is noted that all the call signaling and control functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11)

Regarding claim 13, Walker et al teach the method according to Claim 12 operating between the terminating gateway (Fig. 1, 14b) and an answering modem. (FIG.1, 12b)

Regarding claim 14, Walker et al. teach an apparatus for eliminating false detection in a Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the apparatus comprising:

a communications bus carrying voice band signals associated with a VOIP call(Bold arrow. Fig.3a);

a silence detector (Fig. 3a, "Voice Data Band") coupled to the communications bus adapted to (i) detect silence on the bus and (ii) enable in voice band data mode; (FIG3a, (2))

a voice detector (Fig. 3a, "Voice") coupled to the bus adapted to (i) detect voice on the bus, (ii) initially disable in voice band data mode, (Fig. 3a, (14))
(iii) enable in response to the silence detector's detecting silence for a predetermined length of time, and (iv) monitor the voice band signals after being enabled; and Walker et al. fails to teach a processor, coupled to the silence detector and the voice detector, that terminates voice band data mode and enters voice mode in response to the voice detector's detecting voice on the communications bus.

However, LeBlanc teaches a processor, coupled to the silence detector and the voice detector that terminates voice band data mode and enters voice mode in response to the voice detector's detecting voice on the communications bus(Page 3, paragraph [0034] line 12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 15, Walker et al. teach the apparatus according to Claim 14 wherein the processor continues in voice band data mode if the silence detector detects silence for less than the predetermined length of time (Fig. 3a, (8))

Regarding claim 16, Walker et al. teach the apparatus according to Claim 14 wherein, if the voice detector is enabled, the processor disables the voice detector and continues in voice band data mode in an absence of an indication from the voice detector that voice is detected. (It is noted that when no voice is detected Voice Band Data mode is active, Fig. 1 and Fig. 3a)

Regarding claim 17, Walker et al. teach the apparatus according to Claim 14 wherein, if the silence detector detects silence for a second predetermined length of time, the processor terminates the voice band data mode. (It is shown that there are two predetermined times 200ms and 7s. Fig. 3a, (8))

Regarding claim 18, Walker et al. teach the apparatus according to Claim 17 wherein the second predetermined length of time is at least two seconds. (As shown in Fig. 3a, (8), there are two predetermined time set)

Regarding claim19, Walker et al. teach the apparatus according to Claim 14 wherein the silence detector detects silence on the communications bus in a bi-

directional manner. (Fig. 3a, "Voice Band Data")

Regarding claim 20, Walker et al. teach the apparatus according to Claim 19 wherein the voice detector enables in response to the silence detector's detecting silence for at least two seconds. (Fig. 3a, (8))

Regarding claim 21, Walker et al. teach the apparatus according to Claim 14 further including an echo canceller disabled in voice band data mode and enabled in voice mode. (It is noted when voice services is requested echo cancellation should be present. Page 1, paragraph [0002])

Regarding claim 22, Walker et al. teach the apparatus according to Claim 14 deployed in a gateway. (Fig. 1 , 14a or 14b)

Regarding claim 23, Walker et al. teach the apparatus according to Claim 22 deployed in a terminating gateway. (Fig. 1,14b)

Regarding claim 24, Walker et al. teach the apparatus according to Claim 22 deployed in an originating gateway. (Fig. 1 , 14a)

Regarding claim 25, Walker et al. teach the apparatus according to Claim 14 deployed external from a gateway. (It is shown that all the call signaling and control

functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11)

Regarding claim 26, Walker et al. teach the apparatus according to Claim 25 deployed between the terminating gateway (Fig. 1, 14b) and an answering modem (Fig. 1, 12b).

Regarding claim 27, Walker et al teach a computer-readable medium having stored thereon sequences of instructions, the sequences of instructions, when executed by a digital processor, cause the processor to:

for a Voice Over Internet Protocol (VOIP) call, enable silence detection and disable voice detection in voice band data mode (Fig. 3a, "Voice Band Data");

monitor a voice band signal associated with the VOIP call for silence (Fig.3a, (8));

in response to detecting silence for a predetermined length of time (Fig.3a, (8)), enable voice detection (Silence detected more than certain amount of time, which in result media gateway transition back to voice mode. See page 5, paragraph [0059]); Walker et al. fails to teach if voice detection is enabled, monitor the voice band signal for voice;

and in response to detecting voice, terminate voice band data mode and enter voice mode.

However, LeBlanc teaches if voice detection is enabled, monitor the voice band signal for voice;

and in response to detecting voice, terminate voice band data mode

and enter voice mode. (Page 3, paragraph [0034] line 12)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 28, Walker et al teach the computer-readable medium according to Claim 27 wherein the sequences of instructions cause the processor to continue in voice band data mode and disable voice detection if the silence detected is shorter than the predetermined length of time. (Depending on silence detection predetermined time period. Fig. 3a, (8));

Regarding claim 29, Walker et al. teach the computer-readable medium according to Claim 27 further including instructions to cause the digital processor to continue in voice band data mode in an absence of detecting voice if voice detection is enabled. (Disabling transition to Voice mode if silence detected. Fig. 3a, (2));

Regarding claim 30, Walker et al. teach the computer-readable medium according to Claim 27 wherein the instructions that cause the processor to detect silence include instructions that cause the processor to terminate the voice band data mode if silence exceeds a second predetermined length of time. (See page 5, paragraph [0059]);

Regarding claim 31, Walker et al teach the computer-readable medium according to Claim 30 wherein the second predetermined length of time is at least two seconds. (Fig. 3a, (8));

Regarding claim 32, Walker et al teach the computer-readable medium according to Claim 27 wherein the instructions that cause the processor to detect silence include instructions that cause the processor to detect silence in a bi-directional manner (Fig. 3a, "Voice Band Data").

Regarding claim 33, Walker et al. teach the computer-readable medium according to Claim 32 wherein the instructions that Cause the processor to detect silence include instructions that enable voice detection in response to detecting silence for at least about 250 msec. (See page 5, paragraph [0059] and Fig. 3a (8));

Regarding claim 34, Walker et al. teach the computer-readable medium according to Claim 27 further including instructions that cause the processor to disable echo cancellation in voice band data mode and enable echo cancellation in voice mode (Page 1, paragraph [0002]).

Regarding claim 35, Walker et al. teach the computer-readable medium according to Claim 27 used in a gateway (Fig. 2, 15a).

Regarding claim 36, Walker et al teach the computer-readable medium according to Claim 35 wherein the gateway is a terminating gateway (Fig. 1, 14b).

Regarding claim 37, Walker et al teach the computer-readable medium according to Claim 35 wherein the gateway is an originating gateway (Fig. 1, 14a).

Regarding claim 38, Walker et al teach the computer-readable medium according to Claim 27 used in a network device external from a gateway. (Sheet 1,Fig.1)

Regarding Claim 39, Walker et al. teach the computer-readable medium according to Claim 38 wherein the network device external from a gateway operates between a terminating gateway and an answering modem (It is noted that all the call signaling and control functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11).

Regarding claim 40, Walker et al. teach an apparatus for eliminating false detection in a Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the apparatus comprising:(it is noted when a media gateway transitions back to voice mode, it has been monitored for silence, see page 5, paragraph [0059]) Walker et al. failed to teach means for enabling silence detection and disabling voice detection for a VOIP call in voice band data mode;

However, LeBlanc teaches means for enabling silence detection and disabling voice detection for a VOIP call in voice band data mode; (Page 3, paragraph [0034])
means for monitoring a voice band signal associated with the VOIP call for silence;
means for enabling voice detection in response to detecting silence for a predetermined length of time; (See page 5, paragraph [0059]);
means for monitoring the voice band signal for voice if voice detection is enabled; and
means for terminating voice band data mode and entering voice mode in response to detecting voice. (Page 5, paragraph [0059])

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ono et al. (US Patent Publication No. 2001/0021186) teach Communication-status notification apparatus for communication system, communication-status display apparatus, communication-status notification method, medium in which

communication-status notification program is recorded and communication apparatus

Gummalla et al. (US Patent No. 6,993,007) teach System and method for suppressing silence in voice traffic over an asynchronous communication medium

L'egar'e (US Patent No. 6,400,802) teaches Method and apparatus for performing transmission line testing

6. Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed to:**

Commissioner for Patent
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nima Mahmoudzadeh whose telephone number is (571) 270-3527. The examiner can normally be reached on Monday - Friday 7:30am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Q. Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NM

Nima Mahmoudzadeh
Patent Examiner
A.U. 2609
July 11th, 2007

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